

## REMARKS

Applicant appreciates the thoroughness with which the Examiner has examined the above-identified application. In the October 17, 2006 office action, the Examiner did not enter applicant's September 26, 2006 amendment, stating that the claim amendments raised new issues that would require further search. Applicant respectfully submits this preliminary amendment with an accompanying RCE for entry. Reconsideration is requested in view of the amendments above and the remarks below.

### Rejections under 35 U.S.C. § 102

Claims 1, 3-4, and 8-12 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Hunter (U.S. Patent No. 5,114,572). Applicant respectfully traverses this rejection.

In the July 26, 2006 office action, the Examiner stated that Hunter contains a moving clamp element 88 that translates motion from one direction to another. Applicant disagrees. Upon inspection, applicant finds that Hunter depicts a pivoting locking lever or handle 88, which is arranged to cooperate with a pintle 92 of valve 38 so that the valve is open when the handle is pivoted outwardly. Hunter, col.4, l.67-col. 5, l.4. Applicant respectfully submits that the pivoting locking lever is not a linear cam, nor is it used to *attach* the sump to the head. As applicant previously noted, a cam is a linear linkage or mechanism that *translates* motion. The clamp actuating mechanism of the present invention includes a device (linear cam) that translates one directional motion into another directional motion to engage the clamps in an open or closed position through either direct translation or

rotational translation. Specification, p.5, ll.9-18. The pivoting locking lever of Hunter does not translate motion for clamping the sump to the head. It moves in only one direction about pivot 90. There is no translation. Furthermore, the pivoting locking lever is used to lock the housing so that the sump cannot rotate. This is necessary because the sump is attached to the head by bayonets. To secure the sump to the head, Hunter uses radially projecting, non-movable, bayonet locking elements, which are complementary to three vertically formed, horizontally interrupted buttresses, disposed at ninety degree intervals about the axis of the bowl. Hunter, col. 3, ll.41-52. The filter bowl of Hunter is attached and secured by rotating to engage the bayonet locking elements 77 into the grooves 48. Hunter, col. 5, ll.30-62; Figs. 4a and 4b. Essentially, the locking mechanism of the Hunter design is engaged by rotating bayonet extensions so that they are inserted within grooves and line up with buttresses. The pivoting locking lever is not used to secure the sump to the head. If the pivoting locking lever were the only form of attachment, the filter housing would not function properly, since the sump would only be secured to the head at a single point. The pivoting locking lever simply ensures that the sump cannot be rotated and removed from the head before it is depressurized.

As the Examiner points out, Hunter does not teach, suggest, or disclose a clamp *actuating mechanism* that works in sliding mechanical communication with a linear cam, which is principal to the present invention. "The clamp actuator may comprise a linear cam in mechanical communication with the at least one clamp, a rotary cam in conjunction with a linear cam." Specification, p.1, ll.27-29. The present invention teaches and discloses one or more clamps, which are positioned in their respective horizontal plane around the corresponding rims of the head and the sump. In the present invention, the clamps slide

outwards by the clamp actuating mechanism until the corresponding rims are cleared for opening the filter housing. Fig. 3. Hunter is completely silent with respect to a clamp actuating member in sliding mechanical communication with a linear cam for establishing a translating force. In fact, Hunter does not have an actuating member.

Applicant has amended claims 1 and 13 to define the clamp actuator to include a linear cam in sliding mechanical communication with at least one clamp.

In the present invention, the linear cam translates motion from one direction to another; to wit, motion in the direction of the actuator causes a perpendicular motion against the clamps.

The clamp actuating mechanism comprises a linear cam 130 having a push button end 140, a stub nose 150 distal from push button 140, and an angled portion 160. *Linear cam 130 translates motion in the direction of arrow A into a perpendicular motion that actuates clamps 100, 100' in an open or closed position through direct translation.*  
Specification, p.6, ll.34-p.7, l.6 (emphasis added).

Applicant further notes that claims 21 and 22 distinctly claim that the linear cam of the present invention translates motion of a first direction into motion in a second direction *perpendicular* to the first direction, in order to actuate at least one clamp in an open or closed position through direct translation. Hunter does not teach, disclose, or suggest this feature. Not only is Hunter silent with respect to an actuating member, the pivoting locking lever is not a cam, and does not translate *perpendicular* motion.

Applicant respectfully submits that the aforementioned amendments place the claims in a condition of allowance over the cited prior art of Hunter.

**Rejections under 35 U.S.C. § 103**

Claim 2 stands rejected under 35 U.S.C. § 103(a) as being obvious from Hunter in view of Chiang (U.S. Patent No. 5,294,335). Applicant respectfully traverses this rejection.

For the reasons cited in applicant's June 27, 2006 response, neither Hunter nor Chiang teaches, discloses, or suggests a linear cam in sliding mechanical communication with a clamp. The amendments made to claims 1 and 13 further incorporate the sliding mechanical communication making the present invention patentably distinct over Hunter and Chiang. Moreover, no translational motion is performed by either prior art reference, which is understood to be present in a cam configuration.

Claims 5, 7 and 13-22 stand rejected under 35 U.S.C. § 103(a) as being obvious from Hunter in view of Cartigny, et al. (U.S. Patent No. 5,678,721). Applicant respectfully traverses this rejection.

The Examiner states that Hunter does not disclose or disclose a filter housing with a clamp where the clamp is positioned in partial circumferential contact in a horizontal plane around corresponding rims of the head and the sump. Applicant concurs. However, as noted above, Hunter is also absent other salient limitations of claims 1 and 13, independent of a combination with Cartigny, such as an actuating member including a cam to promote perpendicular motion.

Cartigny teaches two jaws 15a, 15b mounted radially on the closing disk 8 between a locking position of the cover 1 on the container 2, and an unlocking position. Cartigny, col. 3, ll.37-40; Figs. 2-5. The jaws are in the form of circular arcs having a selected length. Each jaw has a lower edge and an upper edge to grip the peripheral edge of the container. Cartigny, col. 3, ll.44-46; Figs. 2-5. Applicant respectfully submits that it is not possible for

the pivoting locking lever of Hunter to work with circular arcs, such as those described in Cartigny, in a manner that allows for an actuating member to initiate a sliding, mechanical cam movement. The pivoting locking lever cannot initiate the movement for securing the jaws of Cartigny to a container. Hunter does not teach or suggest using the pivoting locking lever as an actuating member for initiating peripheral connection. The Hunter and Cartigny designs cannot be combined in any usable fashion. Moreover, if they were combined, they would not teach the present invention.

The Examiner further states that Cartigny teaches a clamp actuator comprising a rotary cam in conjunction with a linear cam. Applicant respectfully submits that the working of Cartigny, as depicted in Fig. 8, is not the working construct of the present invention. Specifically, the present invention requires: "the linear motion of the linear cam is translated to rotational motion of the rotary cam to open said at least two clamps when said linear cam is moved along a plane." Claim 18. As depicted in Fig. 8, Cartigny rotates a straight segment 260 to create a linear movement of the jaws 15a,b. In the present invention, a linear motion causing rotation, which in turn, secures the sump to the head. Again, the pivoting locking lever of Hunter cannot initiate this action, and Hunter makes no suggestion to do so.

It is respectfully submitted that the application has now been brought into a condition where allowance of the entire case is proper. Reconsideration and issuance of a notice of allowance are respectfully solicited.

Respectfully submitted,



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